

### **REMARKS**

Claims 1-9 are pending in the above-identified application. Support for new claims for 4-9 is found at page 6 of the specification.

#### **Issues under 35 USC 103(a)**

Claims 1-3 have been rejected under 35 USC 103(a) as being unpatentable over Sakamoto '049 (USP 6,201,049) in view of JP '851 (Japanese Published Application No. 58-3851) and the "Admitted Prior Art" (page 9, line 23 to page 10, line 2 of the specification) and optionally at least one of Lickes '378 (USP 6,426,378) and Agostini '691 (USP 6,521,691).

The above-noted rejection is traversed based on the following reasons.

#### **Present Invention IDS**

The present invention is directed to a pneumatic tire which includes a thin film layer containing a compound obtained by adsorbing N-(1-methylheptyl)-N'-phenyl-p-phenylenediamine ("8PPD") to silica, as recited in claim 1 for example. As noted at page 5, lines 7-13 of the specification, employment of 8PPD-adsorbed silica advantageously provides for high ozone cracking resistance over a long period time. This advantage is evidenced by the comparative test results shown in Table 1 at page 13 of the specification and further discussed on page 14 thereof. First, please note that Comparative Example 5 in Table 1 employs a general antioxidant "B" (note page 9, lines 20-22) which results in disadvantageously low ozone cracking resistance measured at 2.5. Second, note that in Comparative Example 7 that antioxidant "C" (8PPD not adsorbed on silica) is used and results in an ozone cracking resistance measurement of 3.5. In contrast, in Example 2 (an embodiment of the present invention), antioxidant "D" (8PPD adsorbed on silica) is used and results in an advantageously improved

ozone cracking resistance measurement of 4.5. Consequently, it is clear that the employment of 8PPD adsorbed silica results in significantly and advantageously improved ozone cracking resistance property based on these comparative test results.

#### Distinctions between Present Invention and Cited References

Sakamoto '049 discloses a rubber composition used in tire sidewalls which may employ "OZONONE 35" which is 8PPD as noted at column 4, line 23. Sakamoto '049 further discloses that there is components, including antioxidants, may be "blended" with the described rubber composition (col. 3, lines 43-49).

Sakamoto '049 fails to disclose or suggest the use of 8PPD-adsorbed silica as in the present invention. Thus, significant patentable distinctions exist between present invention and Sakamoto ' 049.

The "admitted prior art" disclosed at pages 9-10 of the present specification includes the commercial product "antioxidant 35-PR" which is 8PPD-adsorbed silica.

The "admitted prior art" fails to include any suggestion of employing the 8PPD adsorbed silica in a thin film layer formed on the buttress of a tire, as required by the present invention. Thus, significant patentable distinctions exist between the present invention and the "admitted prior art".

In addition to the above, it is noted that there fails to be any basis for a motivation for one skilled in the art to employ the commercially available 8PPD-adsorbed silica mentioned in the present specification in a tire sidewall rubber compositions as described by Sakamoto '049. Since Sakamoto '049 fails to make any distinction with regard to whether 8PPD adsorbed on silica, and since the "admitted prior art" fails to suggest the use of the 8PPD adsorbed silica in a tire sidewall rubber composition, there fails to be an adequate basis for combining these

disclosures together in an attempt to obtain the present invention. In fact, it appears the only basis is improper hindsight reconstruction based on the disclosure of the present application, which is prohibited as a basis for combining references together in support of an obviousness rejection. *In re Mills*, 916 F.2d 680 16 USPQ2d 1430 (Fed. Cr. 1990); MPEP 2143.01, Rev. 2, May 2004, page 2100-131. In addition, both of these cited references fail to recognize the advantageous and unexpected properties achieved with regard to significantly improved ozone cracking resistance properties as evidenced by the comparative test results discussed above. Therefore, significant patentable distinctions exist between the present invention and each of these cited references, whether taken separately or improperly combined.

The additionally cited references, i.e. JP '851, Lickes '378 and Agostoni '691, are all farther removed from the present invention than either Sakamoto '049 or the "admitted prior art" discussed above. All of these other cited references fail to disclose or suggest the employment of 8PPD-adsorbed silica in a thin film layer formed on the buttress of a tire, as in the present invention. All of the other cited references merely generally suggest that antioxidants be considered for use in tire rubber compositions, but fall short of recognizing the advantageous, unexpected improved properties with regard to ozone cracking resistance achieved by the present invention which employs 8PPD-adsorbed silica. Consequently, significant patentable distinctions exist between the present invention and all of these other cited references.

It is submitted for the reasons above that the present claims define patentable subject matter such that this application should now be placed in condition for allowance.

If any questions arise in the above matters, please contact Applicant's representative, Andrew D. Meikle (Reg. No. 32,868), in the Washington Metropolitan Area at the phone number listed below.

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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By 

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